

ANTIMICROBIAL PEPTIDES AND DERIVED METAPEPTIDES

ABSTRACT OF THE DISCLOSURE

The peptides and derivative metapeptides based upon natural antimicrobial peptides have potent and broad spectrum activity against pathogens exhibiting multiple antibiotic resistance. Specific peptides can also potentiate the antimicrobial functions of leukocytes, such as neutrophils. In addition, they exhibit lower inherent mammalian cell toxicities than conventional antimicrobial peptides, and overcome problems of toxicity, immunogenicity, and shortness of duration of effectiveness due to biodegradation, retaining activity in plasma and serum. The peptides and derivative metapeptides exhibit rapid microbicidal activities *in vitro*, can be used to potentiate conventional antimicrobial agents, to potentiate other antimicrobial peptides, and are active against many organisms that exhibit resistance to multiple antibiotics currently in existence.